with a thin surface layer (component A) can be created according to the inventive method and the relative proportion of filler material can be increased by component B material being loaded into the mould cavity during the holding pressure phase.

IN THE CLAIMS:

Please cancel claims 1-12 from the application without prejudice.

Please add the following new claims 13-~~20~~ 22 as follows:

--13. Method for operating a multi-component injection moulding form tool in order to produce multi-layered formed bodies, whereby the multi-component injection moulding form tool features a hot runner nozzle with a needle shut-off mechanism (36) used to release or block one inner jet chamber (3) and one outer jet chamber (5) of the nozzle needle (34) and, to that end, the needle shut-off mechanism (36) features a movable needle (37) and at least one first plunger (38) and one second plunger (39), arranged such that they are movable within a cylindrical barrel, whereby either of said plungers (38, 39) may be shifted by means of compression in such a manner that the needle (37) connected to these plungers (38, 39) may be brought into the corresponding releasing/blocking positions (I, II, III, IV), whereby one component A to be injected to form a thin surface layer of new material is directed through the innermost jet chamber (3) and one component B to be injected as the filler material is directed through the one outer jet chamber (5), whereby, in the first step in the cycle, the shut-off needle (37) is brought into said position (I), wherein the innermost jet chamber (3) containing component A and the one outer jet chamber (5) containing component B are opened, whereby, in the first step in the cycle, only component A is conveyed through the innermost jet chamber (3) and conveyance of the other components through the one outer

jet chamber (5) is stopped, and characterised in that, in order to produce a three-layered preform with a component B content of over 35 %, component B is conveyed through the one outer jet chamber (5) in the second step in the cycle and the material shrunk during cooling is replaced with component B in the third step in the cycle such that the component B content amounts to over 35 vol. %, and, in order to complete the mould cycle, the shut-off needle (37) is brought into position III, wherein both the innermost jet chamber (3) and the one outer jet chamber (5) are closed.

14. Method according to Claim 13, characterised in that, in the second step in the cycle, the shut-off needle (37) is brought into position II, wherein the innermost jet chamber (3) is blocked and the one outer jet chamber (5) opened.

15. Method for operating a multi-component injection moulding form tool in order to produce multi-layered formed bodies, whereby the multi-component injection moulding form tool features a hot runner nozzle with needle shut-off mechanism (36) used to release or block one inner jet chamber (3) and one outer jet chamber (5) of the nozzle needle (34) and, to that end, the needle shut-off mechanism (36) features a movable needle (37) and at least one initial plunger (38) and one second plunger (39), arranged such that they are movable within a cylindrical barrel, whereby either plungers (38, 39) may be shifted by means of compression in such a manner that the needle (37) connected to these plungers (38, 39) may be brought into the corresponding releasing/blocking positions (I, II, III, IV), whereby one component C to be injected to form a thin barrier layer of barrier material is directed through the innermost jet chamber (3) and one component B to be injected as the filler material is directed through the one outer jet chamber (5), whereby, in the first step in the cycle, the shut-off needle (37) is brought into a position (I) wherein the

innermost jet chamber (3) containing component C and the outer jet chamber (5) containing component B are opened, whereby, in the first step in the cycle, only component C is conveyed through the innermost jet chamber (3) and conveyance of the other component through the one outer jet chamber (5) is stopped, characterised in that, in order to produce a three-layered preform with a barrier layer of material C, both component C and component B are conveyed through the innermost jet chamber (3) and the outer jet chamber (5) respectively in the second step in the cycle such that the component C content amounts to 5 % or less of the overall volume and in that, in the third step in the cycle, conveyance of component C is interrupted in such a manner that only component B material is conveyed into the mould cavity from the outer jet chamber (5), and, in the fourth step in the cycle, the material shrunk during cooling is replaced with said component B, and, in order to complete the mould cycle, the shut-off needle (37) is brought into position III, wherein both the innermost jet chamber (3) and the one outer jet chamber (5) are closed.

16. Method as claimed in Claim 15, characterised in that the shut-off needle (37) is left in position I in the second and third steps in the cycle.

17. Method for producing a five-layered preform with an outer skin (66) and an inner skin (65) fabricated from material A, a barrier layer fabricated from material C, particularly nylon, and a filler material B, particularly recycled material, in the first step in the cycle, the shut-off needle (37) is brought into position I, wherein the innermost jet chamber (3) containing component C and both the outer jet chamber containing component A and one jet chamber in between containing component B are opened, whereby conveyance of components B and C is stopped in the first step in the cycle and only component A is conveyed through the outer jet

chamber, that conveyance of component A is stopped in the second step in the cycle and components B and C are conveyed at the same time, i.e. in the form of tubes, and, in the third step in the cycle, conveyance of component C is stopped and the plastic forming material shrunk during cooling is replaced with component B.

18. Method according to Claim 17, characterised in that a component C content of approx. 5 vol. % and a component B content of over 30 % of the overall volume is conveyed in the second step in the cycle.

19. Preform produced according to one of the methods as claimed in Claim 13, characterised in that it shows a component B content of over 35 vol. %.

20. Preform produced according to one of the methods as claimed in Claim 15, characterised in that it shows a barrier layer of material C of less than approx. 5 vol. % and a material B content of over 35 vol. %.

21. Preform produced according to one of the methods as claimed in Claim 15, characterised in that it shows a component B content of over 35 vol. %.

22. Preform produced according to one of the methods as claimed in Claim 17, characterised in that it shows a barrier layer of material C of less than approx. 5 vol. % and a material B content of over 35 vol. %.--

REMARKS

The Preliminary Amendment filed 20 April 2000 was to be examined with the Annexes to the International Preliminary Examination Report. However, the U.S. PTO did not enter the